```
In [1]:   import pandas as pd
          import numpy as np
          import seaborn as sns
          import matplotlib.pyplot as plt
```
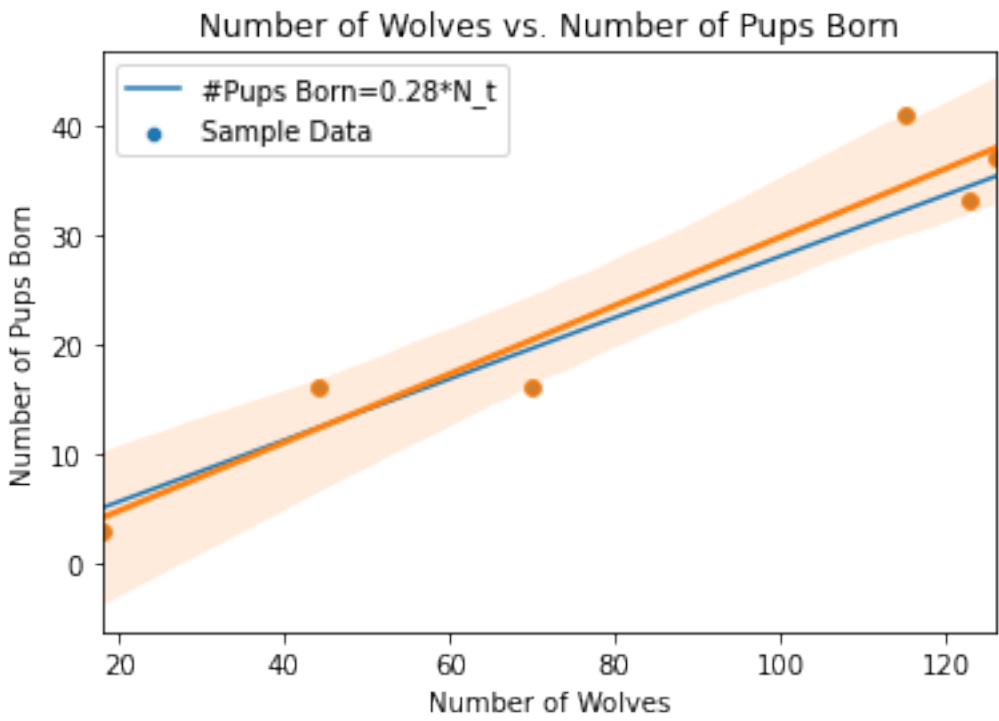
```
In [2]:   df = pd.DataFrame(
          {
              "year": [1990,1993,1996,1999,2002,2005],
              "N_t": [18,44,70,126,123,115],
              "pups_born": [3,16,16,37,33,41]})
```

```
In [3]:   df.set_index("year")
```

Out[3]:

year	N_t	pups_born
1990	18	3
1993	44	16
1996	70	16
1999	126	37
2002	123	33
2005	115	41

```
In [4]:   sns.scatterplot(data=df,x="N_t",y="pups_born",legend="auto", label="Sample Data")
          sns.lineplot(data=df, x="N_t",y=df["N_t"].multiply(0.28),legend="auto",label="#Pups Born=0.28*N_t")
          sns.regplot(data=df,x="N_t",y="pups_born")
          plt.title("Number of Wolves vs. Number of Pups Born")
          plt.xlabel("Number of Wolves")
          plt.ylabel("Number of Pups Born")
          plt.savefig("Q_2_Hw_1_142.png")
```



```
In [ ]:
```